

AMENDMENTS TO THE CLAIMS

This Listing of Claims will replace all prior versions and listings of claims in this application.

Listing of Claims:

1. (Currently amended) A process for separating mixtures of isomeric pentenenitriles, in which at least one isomer is depleted from the mixture, which comprises effecting the separation of the mixtures of isomeric pentenenitriles selected from the group consisting of

- mixtures comprising 2-methyl-3-butenenitrile and 3-pentenenitrile,
- mixtures comprising 2-methyl-3-butenenitrile and (Z)-2-methyl-2-butenenitrile,
- mixtures comprising cis-2-pentenenitrile and 3-pentenenitrile and

by distilling under a pressure of from 0.01 to 0.5 bar and

- mixtures comprising (E)-2-methyl-2-butenenitrile and 3-pentenenitrile

by distilling under a pressure of from 0.001 to 1 0.02 to 0.5 bar.

2. (Original) The process according to claim 1, wherein at least two different isomers are separated.

3. (Previously presented) The process according to claim 1, wherein the mixture comprises 2-methyl-3-butenenitrile and 3-pentenenitrile and is produced from a reaction of 1,3-butadiene with hydrogen cyanide over a hydrocyanation catalyst.

4. (Original) The process according to claim 3, wherein the proportion of 2-methyl-3-butenenitrile in the mixture is from 0.1 to 99.9% by weight, based on the sum of all pentenenitrile isomers in the mixture, and/or the proportion of 3-pentenenitrile in the mixture is from 0.1 to 99.9% by weight, based on the sum of the pentenenitrile isomers in the mixture.

5. (Previously presented) The process according to claim 1, wherein the mixture comprises 2-methyl-3-butenenitrile and (Z)-2-methyl-2-butenenitrile and is produced from an

isomerization of 2-methyl-3-butenitrile.

6. (Original) The process according to claim 5, wherein the proportion of 2-methyl-3-butenitrile in the mixture is from 0.1 to 99% by weight, based on the sum of the pentenenitrile isomers in the mixture, and/or the proportion of (Z)-2-methyl-2-butenitrile in the mixture is from 0.1 to 99% by weight, based on the sum of the pentenenitrile isomers in the mixture.

7. (Previously presented) The process according to claim 1, wherein the mixture comprises cis-2-pentenenitrile and 3-pentenenitrile and is produced from a reaction of 3-pentenenitrile with hydrogen cyanide over a hydrocyanation catalyst.

8. (Original) The process according to claim 7, wherein the proportion of cis-2-pentenenitrile in the mixture is from 0.1 to 99.9% by weight, based on the sum of pentenenitrile isomers in the mixture, and/or the proportion of 3-pentenenitrile in the mixture is from 0.1 to 99.9% by weight, based on the sum of the pentenenitrile isomers in the mixture.

9. (Previously presented) The process according to claim 1, wherein the mixture comprises (E)-2-methyl-2-butenitrile and 3-pentenenitrile and is produced from a reaction of 1,3-butadiene with hydrogen cyanide over a hydrocyanation catalyst or from the isomerization of 2-methyl-3-butenitrile or from a reaction of 3-pentenenitrile with hydrogen cyanide over a hydrocyanation catalyst.

10. (Original) The process according to claim 9, wherein the proportion of 3-pentenenitrile in the mixture is from 0.1 to 99.9% by weight, based on the sum of the pentenenitrile isomers in the mixture, and/or the proportion of (E)-2-methyl-2-butenitrile in the mixture is from 0.1 to 99.9% by weight, based on the sum of the pentenenitrile isomers in the mixture.

11. (Previously presented) The process according to claim 2, wherein the mixture comprises 2-methyl-3-butenitrile and 3-pentenenitrile and is produced from a reaction of 1,3-

butadiene with hydrogen cyanide over a hydrocyanation catalyst.

12. (Previously presented) The process according to claim 2, wherein the mixture comprises 2-methyl-3-butenitrile and (Z)-2methyl-2-butenitrile and is produced from an isomerization of 2-methyl-3-butenitrile.

13. (Previously presented) The process according to claim 2 wherein the mixture comprises cis-2-pentenitrile and 3-pentenitrile and is produced from a reaction of 3-pentenitrile with hydrogen cyanide over a hydrocyanation catalyst.

14. (Previously presented) The process according to claim 2, wherein the mixture comprises (E)-2-methyl-2-butenitrile and 3-pentenitrile and is produced from a reaction of 1, 3-butadiene with hydrogen cyanide over a hydrocyanation catalyst or from the isomerization of 2-methyl-3-butenitrile or from a reaction of 3-pentenitrile with hydrogen cyanide over a hydrocyanation catalyst.